

REMARKS

Claims 9, 10, 13-19, 34, and 36-40 remain herein.

1. Claims 15, 16 and 19 were rejected under 35 U.S.C. § 102 (b) over Ochiai '973.

But, Ochiai fails to disclose or suggest “a wait cycle designating unit for designating the number of wait cycles provided when memory access is requested from the plurality of blocks by the bank access data alone,” as recited in applicants’ claim 15.

Figs. 7 and 8 of Ochiai show the arbiter circuit 30 handling multiple transfer requests from transfer target units 31-33. Col. 25, lines 51-54 of Ochiai describe that the selection portion 305 “selects access to a memory area indicated by the transfer request information corresponding to the head bank representing a different bank from the tail bank.” In arbitrating multiple requests, Ochiai does not generate wait cycles “when memory access is requested from the plurality of blocks by the bank access data alone,” as recited in applicants’ claim 15. In fact, col. 26, lines 1-4 of Ochiai state, “[T]he selecting portion 305 thus defines order of access immediately after the access to the memory area indicated by the preceding transfer request information.”

While page 3 of the Office Action points to Fig. 28 of Ochiai as allegedly teaching applicants’ claimed wait cycle designating unit, that diagram merely shows the idle state of the memory when no access requests are made to the memory. The idle state of the memory shown in Fig. 28 of Ochiai, by itself, does not teach or suggest a wait cycle designating unit for designating the number of wait cycles provided “when memory access is requested from the plurality of blocks by the bank access data alone,” as recited in applicants’ claim 15.

For all the foregoing reasons, there is no disclosure or teaching in Ochiai '973 of all elements of applicants' presently claimed invention. Accordingly, Ochiai '973 is not an adequate basis for a rejection of applicants' claims under § 102. Nor is there any disclosure in Ochiai '973 that would have suggested applicants' claimed invention to one of ordinary skill in this art. Reconsideration and withdrawal of this rejection of claims 15, 16 and 19 are respectfully requested.

2. Claims 17 and 18 were rejected under 35 U.S.C. 103 (a) over Ochiai '973. Claims 17 and 18 are patentable for the reasons discussed above with respect to claim 15.

3. Claims 34, 36-39 and 40 were rejected under 35 U.S.C. § 103 (a) over Ochiai '973 and Miyawaki '266.

Ochiai and Miyawaki fail to teach or suggest "an arbitrating method designating unit for designating either higher priority on a bank changing the priority of memory access to prevent successive access to the same bank or higher priority on access changing the priority of memory access to have successive read access when the memory access request from the plurality of blocks is made to the same bank as immediately preceding access and memory access permitted by the arbitration circuit immediately before is read access," as recited in claim 34. Page 7 of the Office Action admits that Ochiai fails to teach or suggest applicants' claimed arbitrating method designating unit. However, the Office Action alleges that Miyawaki makes up for this deficiency of Ochiai.

Miyawaki fails to describe an arbitration designation unit choosing between either bank priority or access priority. Col. 4, lines 33-36 of Miyawaki describe only describe that “present invention changes the priority of the operating according to the situation of the memory 4.” Miyawaki does not describe choosing between different arbitrating methods, as required by applicants’ claim 34.

Thus, there is no disclosure or teaching in either Ochiai ‘973 or Miyawaki ‘266 of all elements of applicants’ claimed invention. Nor is there any disclosure or teaching in either Ochiai ‘973 or Miyawaki ‘266 that would have suggested applicants’ claimed invention to one of ordinary skill in the art. Still further, there is no disclosure or teaching in either of these references, and no sound basis stated in this record, that would have suggested the desirability of combining any portions thereof effectively to anticipate or render obvious applicant’s claimed invention. Accordingly, reconsideration and withdrawal of these grounds of rejection, and allowance of all claims 34, 36-39 and 40 are respectfully requested.

4. Claims 9, 10, 13 and 14 were rejected under 35 U.S.C. § 103 (a) over Ochiai ‘973, Miyawaki ‘266, and Talbot ‘135.

Ochiai, Miyawaki and Talbot fail to teach or suggest “wherein the data change block is controlled based on a data latch control signal from the arbitration circuit indicating a change in the order of memory access of the first-half and second-half bank access data in the block access data,” as recited in applicants’ claim 9. Pages 13 and 14 of the Office Action admit that Ochiai and Miyawaki fail to teach or suggest applicants’ claimed data change block. However, the Office Action alleges that Talbot makes up for the deficiency of Ochiai.

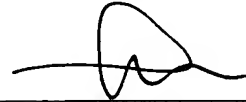
Col. 5, lines 20-34 of Talbot generally describe that “steps should be taken to prevent the situation that a requested write followed by a requested read to the same address is reordered so that the read is performed before the write.” However, Talbot fails to teach or suggest reordering when there is a “change in the order of memory access of the first-half and second-half band access data,” as recited in applicants’ claim 9.

Thus, there is no disclosure or teaching in either Ochiai ‘973, Miyawaki ‘266 or Talbot ‘135 of all elements of applicants’ claimed invention. Nor is there any disclosure or teaching in either Ochiai ‘973, Miyawaki ‘266 or Talbot ‘135 that would have suggested applicants’ claimed invention to one of ordinary skill in the art. Still further, there is no disclosure or teaching in either of these references, and no sound basis stated in this record, that would have suggested the desirability of combining any portions thereof effectively to anticipate or render obvious applicant’s claimed invention. Accordingly, reconsideration and withdrawal of these grounds of rejection, and allowance of all claims 9, 10, 13 and 14 are respectfully requested.

Accordingly, all claims 9, 10, 13-19 and 34, and 36-40 are now fully in condition for allowance and a notice to that effect is respectfully requested. The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293. If further amendments would place this application in even better condition for issue, the Examiner is invited to call applicants' undersigned attorney at the number listed below.

Respectfully submitted,

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